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Using the Risk Function in the Problem of Detection of Radiophysical Sounding Signals

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Abstract

© 2017 Springer Science+Business Media New YorkWe propose a model of a two-component mixture for the statistical description of a radiophysical sounding signal at the output of the receiver of a signal with linear frequency modulation. Within this framework, it is found that the risk function can be used to detect readings of the second component in the mixture for small reading amounts. The method for detection of the second mixture component by using the risk function of the mixture on the basis of learning samples is proposed and tested experimentally for the first time.

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